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Every Step
in Tracking

MT90 | User Manual

Thanks for purchasing this Meitrack MT90. This device will provide you high quality GPS tracking service based on Meitrack's exceptional technology and standards.

This user manual has been specially designed to guide you through the functions and features of your MT90.

- Please read this manual carefully before using your device to ensure safe and correct use.
- The descriptions of your manual are based on the default setting of MT90.
- Please keep this manual for future reference.

Warm Tips

Choose a rate plan wisely: Your MT90 can use up Internet bandwidth quickly. Before you use your MT90, we strongly recommend that you talk to your mobile operator about data rates. If you're on a standard data plan, the costs could really add up. Switching to a flat-rate plan could be a lot cheaper.

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MT90 Applications

- Personal Tracking and Protection
- Pet Tracking
- Assets Tracking and Security
- Vehicle Tracking

MT90 Features

- SiRF IV GPS and Quad Band GSM 850 / 900 / 1800 / 1900Mhz
- Small in Size (77x47x20mm) and Light in Weight (65g)
- Waterproof IP66
- Low Power Consumption and Long Standby Time
- GPS and GSM Base Station of Bi-module Positioning
- Track by SMS / GPRS (MEITRACK Protocol)
- Inbuilt Motion Sensor
- Inbuilt Battery

MT90 Main Functions

Track on Demand	Track by Time Interval	Track by Distance Interval
Two-way Audio	Data Logger	SOS Alarm
Geo-fence Alarm	GPS Fake Zone Alarm	Low Battery Alarm
Speeding Alarm	Mileage Report	Listen-in (Voice Monitoring)

MT90 Specifications

Item	Specifications
Dimension	77 x 47 x 20mm
Weight	65g
Charging Voltage	Mini USB charging interface, DC4.2V~5.5V/400mA
Back-up Battery	1100mAh/3.7V rechargeable and replaceable lithium-ion battery(NokiaBL-5C compatible)
Power Consumption	65mA standby current

Item	Specifications
Operating Temperature	-20°C~55°C
Humidity	5%~95%
Work Time	60 hours in power-saving mode and 16 hours in normal mode
LED	2 LED lights to show power, GPS, GSM and other status
Button	5 Buttons for making phone call and sending SMS
Microphone/Speaker	Internal microphone and speaker
Memory	8MB
Sensor	Accelerometer
GSM Frequency	GSM850 / 900 / 1800 /1900MHz
Channel	48 channels all-in-view tracking
GPS Chip	Latest GPS SiRF IV chipset
GPS Sensitivity	-159Db
Positioning Accuracy	10 Meters, 2D RMS

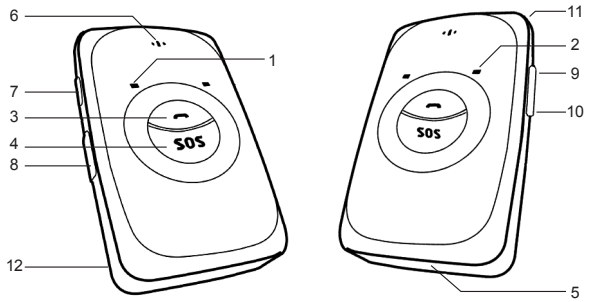
Inside the Box

Please check your product box for the following items:

- MT90 device
- Battery
- USB cable
- Travel adapter (charger)
- Mini screwdriver
- Lanyard
- User Manual, Warranty Manual and CD

Soft Reminder: Use only Meitrack-approved software. Pirated or illeagal software may cause damage or malfunctions that are not covered by Meitrack's warranty. The supplied accessories perform best for your device.

Your MT90



No.	Item	Description
1	GPS LED Flashlight (Blue)	Indicating GPS and battery status, please refer to below LED Indications.
2	GSM LED Flashlight (Green)	Indicating GSM status, please refer to below LED Indications.

No.	Item	Description
3	Answer / Hand-up Button	◇ Press to receive an incoming call. ◇ Press to complete a conversation. ◇ Long press for 2 seconds to send GPRS message to the server when no incoming call or conversation.
4	SOS Button	◇ Long press for 2 seconds, MT90 will dial 3 preauthorized phone numbers in turn. It will stop dialing when one number answers. Meanwhile, MT90 will send an SMS to the preauthorized phone number and send GPRS message to the server if GPRS function is enabled. ◇ Press to wake up if MT90 is in sleep mode.
5	Microphone	It will run automatically when using listen-in and call functions.
6	Speaker	It will run automatically when using call function.

No.	Item	Description
7	Power On / Off Button	◇ Long press for 2 seconds to turn on MT90. ◇ Long press for 2 seconds to turn off MT90. ◇ Press to wake MT90 up from sleep mode, power LED will slowly flash for 10 seconds.
8	Mini USB	Mini USB is used for charging, connecting to computer for setting up parameters, updating software and so on.
9	Volume+ / Logger Button	◇ Long press to turn up the volume. ◇ Long press for 2 seconds to start hands-free conversation. In standby mode, long press for 2 seconds, when the buzzer “BI” once, the logger will run automatically. MT90 will log the route every 30 seconds (default) automatically. Route record can be exported with the computer. ◇ Long press for 2 seconds again, when the buzzer “BI” twice, and the logger will stop automatically.

No.	Item	Description
10	Volume- / GPRS Button	◇ Long press to turn up the volume. ◇ In standby mode, long press for 2 seconds, when the buzzer “BI” once, GPRS function will be enabled automatically. (Precondition: GPRS parameter must be set in advance, default GPRS message interval is 10 minutes). ◇ Long press for seconds again, when the buzzer “BI” twice, GPRS function will be disabled automatically.
11	Lanyard Loop	For connecting lanyard.
12	Battery Cover	Install the battery, SIM card and Micro SD card while open the battery cover.

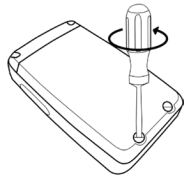
LED Indications

Long press the switch for 2 seconds to turn on / off MT90.

GPS LED Flashlight (Blue)	
On	**Charging**
Flashing (every 5 seconds)	Sleeping
Flash (1 second on, 1 second off)	No GPS fix or initializing
Off	GPS fix
Fast Flash (0.3 second on, 0.3 second off)	Low battery

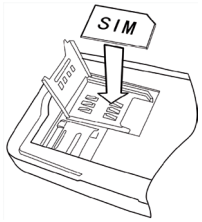
GSM LED Flashlight(Green)	
On	**A call is coming in or busy**
Flashing (every 5 seconds)	Sleeping
Flashing (1 second on and 1 second off)	No GSM signal or initializing
Off	MT90 is connected to the GSM network

Getting Started



1. Remove the Battery Cover

With the device turned off, you're your MT90 securely with the front facing down. User the mini screwdriver to remove 2 screws left and right in turn, lift up the back cover from the notch at the bottom of the device.



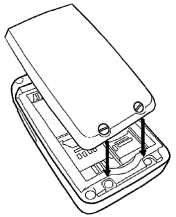
2. Insert the SIM Card

Place the SIM card into the device with the gold-colored facing down.

Note: Make sure the SIM card lock is closed; enough balance with Caller ID Display function is a must; if using GPRS function, you should pay attention to the existing SIM card GPRS charge.

3. Insert the Micro SD Card

Insert the Micro SD card into the slot with its gold contacts facing down and push it until it clicks into place.



4. Insert the Battery

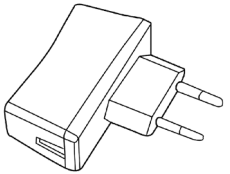
Insert the contacts side of the battery first and then gently push the battery cover into place.

Notes: Battery performance depends on many factors, including signal strength, the temperature of the environment in which you operate your phone, the features and/or other program usage patterns.

5. Charge the battery

The battery is partially charged when shipped. Before using the device for the first time, it is recommended that you charge the battery for 8 hours. Connect one end of the USB cable to the connector to your device; and other end of USB cable to the USB port of the AC adapter.

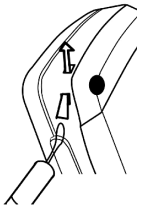
Note: While charging, the device may heat up. This is normal and should not affect your device's lifespan or performance.



Charge with the travel adapter

Open the cover of the multifunction jack of the device, plug the small end of the adapter into the multifunction jack, and plug the large end of the travel adapter into a power outlet.

Note: Improperly connecting the travel adapter can cause serious damage to the device. Any damage caused by misuse is not covered by the warranty.



Attach a lanyard

Slide a lanyard through the slot and hook it over the small projection.

Once you've installed your battery, SIM card and Micro SD card, you can turn on your device and start using it.

When you turn on the device for the first time, you will be promoted to set up your device. For more information on how to set up your device, please read the following instructions.

Quick Operation Instruction

Operation Tips: To use MT90 in a proper way, SMS must be sent in advance or by computer software to set some common parameters and adapt to local time, which would allow you to better enjoy the GPS service of Meitrack.

1. Real-time Location Tracking

This location-tracking for knowing the current location of MT90, to ensure normal function of the GPS signal.

- Call the SIM card number embedded in MT90, hang up till the dial sound 2-3 times, as follows:

If your phone does not support direct access, you can enter longitude and latitude to the URL to check the location. http://maps.meigps.com

In the SMS, the values after "lat" is the latitude, the values after "lng" is the longitude.

2. SOS

This command is to set the SOS emergency communications number, call the phone number, inform the location by SMS and other SMS additional features at the same time.

- The Content of Mobile Phone SMS:
  0000, A71, Function Number 1, Function Number 2, Function Number 3
  Sent to the embedded SIM card numbers.
  (Tips: ","should be English comma and no space before and after the comma)

- MT90 automatic reply SMS:
  IMEI, A71, OK
  Prompts successful, successfully set up SOS emergency communications number.

- When you press the SOS emergency button, MT90 will dial 3 preauthorized phone numbers in turn. It will stop dialing when one number answers.
  Note: The default value is empty, if the function numbers are less than three while setting, it must be added "," to avoid setting failed. For example:
  0000,A71,13500000000, or **0000,13500000000,13600000000,**
  To clear the combination of functions directly sending **0000, A71**

3. Listening-in (Voice Monitoring)

This command is to listen-in the environment voice after setting the MT90, confidentially and automatically access to answer the listening state, one-way voice communication.

- The Content of Mobile Phone SMS:
  0000, A72, Monitor Number 1, Monitor Number 2
  Sent to the embedded SIM card numbers.

- **IMEI, A72, OK**
  Successfully set up monitor number.

- When the set monitor number call MT90, MT90 will answer it automatically and enter into the listening state, the device will not emit any sound.
  Note: The default value is empty, if the function numbers are less than three while setting, it must be added "," to avoid setting failed. To clear the combination of monitor number directly sending **0000, A72**

4. Sleep Mode

This command is to open the sleep function, Log, timing and location are all automatically out of work.

- The Content of Mobile Phone SMS:

  0000, A73, sleep levels

  Sent to the embedded SIM card numbers.

- MT90 automatic reply SMS:

  IMEI, A73, OK

  Prompt successfully.

- To restart the Log or regular position, you must first cancel the sleep mode.

  Note: The sleep level = 0, cancel the sleep mode (default); sleep level = 1, normal sleep; sleep level = 2, deep sleep.

5. Time Zone

This command is to modify the SMS Report to the local time zone, to ensure the acceptance of the GPS time. Default Beijing time, GMT480. Please follow below instructions for time zone modification.

- The Content of Mobile Phone SMS:

  0000, B35, 480

  Sent to the embedded SIM card numbers.

- MT90 Automatic Reply SMS:

  IMEI, B35, OK

  Set up the time zone successfully.

  Note: The value is your MT90's IMEI number, the device data has no real sense, don't need to care about it, below the same.

6. Fast Open GPS Tracking

This command is only to quickly open an embedded SIM card's GPRS function, to ensure normal function on the GPS signal.

- The Content of Mobile Phone SMS:

  0000, F12

  Sent to the embedded SIM card numbers.

- MT90 automatic reply SMS:

  IMEI, F12, OK

  Successfully launched GPRS function.

  Note: Please refer to Meitrack Manager if you want to change server location.

7. More Settings

You can configure MT90 by mobile phone or by computer using the MEITRACK Manager to Setting Mutiple Software. For more details, please refer to “Configuration by Computer”.

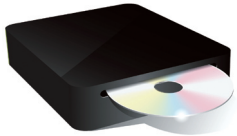
Note: Manager and SMS command. MT90 will only accept commands from a user with the correct password and report SMS report to the user.If preauthorized phone number was set, only this phone number can receive SMS reports.

For more details regarding SMS commands, please refer to MEITRACK SMS Protocol.

Configuration by Computer

This part mainly shows you how to use the MEITRACK Manager.
Please refer to the MEITRACK Manager User Guide for more information regarding configuration and functions.

Install the MT90 software of MEITRACK Manager



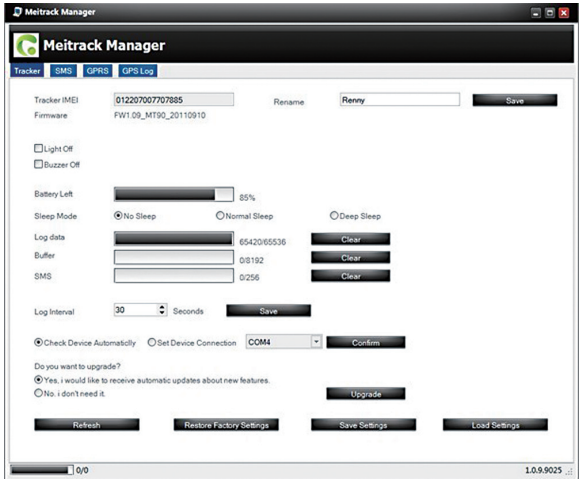
Find the software of MEITRACK Manager from the CD.

Install it following the steps, and find the application icon of MEITRACK Manager.

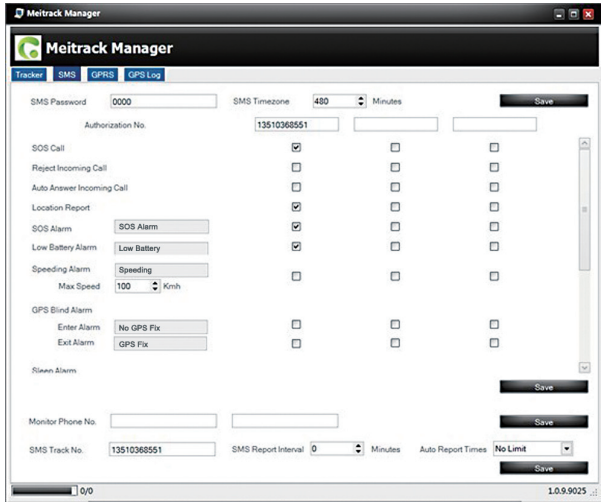
Connect MT90 with computer, and sync the setting of MEITRACK Manager.

Connect USB cable with the USB port of computer, then another end connect with MT90.

Run ‘MEITRACK Manager.exe’, it will detect Comm port and read all MT90’s parameters automatically:



SMS Tracking



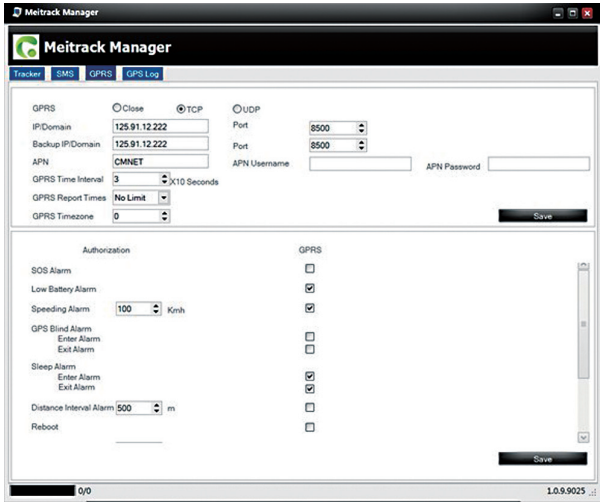
Items	Descriptions
SMS Password	The defaulted value 0000 of SMS password for sending SMS commands by mobile phones.
SMS Time Zone	◇ Default time of the tracker is GMT 480, you can use this to correct the trackers time to your local time for SMS report. ◇ minute = 0, GMT 0 (default); ◇ minute = [-32768,32767], set time difference in minutes to GMT. ◇ Time zone for SMS is the same as GPS Log, but separate from GPRS packet.
Authorization No.	A phone number to receive SMS reports, incoming call and selected event reports.
SOS Call	Press SOS button and make a call to authorized phone No.
Reject Incoming Call	Hang up automatically when an incoming call is received from correspondent authorized phone No.

Items	Descriptions
Auto Answer Incoming Call	Auto answers incoming call from authorized phone No. and enables two-way audio.
Report SMS Location	Report SMS location after receiving an incoming call.
SOS Alarm	Report to authorized phone No. when SOS button is pressed. SMS header defaulted as “ SOS”.
Low Battery Alarm	Report when backup battery’s voltage is below 3.5V. SMS header defaulted as “ Low Battery”.
Speeding Alarm	Report when MT90 speeds higher than the pre-set value. SMS header defaulted as “ Speeding”.
GPS Blind Alarm	◇ Enter Alarm: report when MT90 enters GPS fake zone. SMS header defaulted as “ No Fix”. ◇ Exit Alarm: report when MT90 exits GPS fake zone. SMS header defaulted as “ Fix”.

Items	Descriptions
Sleep Alarm	◇ Enter Alarm: report when MT90 enters sleep mode. SMS header defaulted as “ Enter Sleep”. ◇ Exit Alarm: report when MT90 exits sleep mode. SMS header defaulted as “ Exit Sleep”.
Distance Interval Alarm	Report when MT90’s journey reaches pre-set distance. Distance is in meter. SMS header defaulted as “ Distance”.
Reboot	Report when MT90 reboots. SMS header defaulted as “ Reboot”.
Geo Fence Alarm	Geo-fence is circle with preset radius. Max 8 Geo-fence waypoints can be set. ◇ Enter Alarm: report when MT90 enters Geo-fence. SMS header defaulted as “ Enter GEO”. ◇ Exit Alarm: report when MT90 exits Geo-fence. SMS header defaulted as “ Exit GEO”. ◇ Add New: set radius latitude and longitude, or draw Geo-fence on map directly in circle.

Items	Descriptions
Monitor Phone No.	◇ Authorize a phone number to make a silent call to the tracker. The tracker will answer the call automatically which allows the caller to listen to what is happening around the tracker. There is no voice indication that the call is in progress. ◇ Phone Number: Max 2, 16 characters. If no preset phone number, it is empty (default).
SMS Track No.	◇ Authorize a phone No. to receive SMS report by time interval. ◇ SMS Report Interval: = 0, stop tracking by time interval (default); = [1,65535], track by interval in minute. ◇ Auto Report times: = no limit, unlimited times for report; = [1,255], it will stop reporting when reaching preset times.
Save	Save above settings to the tracker.

GPRS Tracking



Items	Descriptions
GPRS	Select TCP / UDP to enable GPRS communication. Close: Close GPRS upload time. TCP: TCP is a stable connection, it is recommended to use this model. UDP: UDP can save traffic and less stable.
IP / Domain and Port	Input main server's IP address and port number.
Backup IP / Domain and Port	Input backup server's IP address and port number to avoid losing data when main server is down. The backup server will receive data automatically.
APN APN user name APN password	APN, APN username, APN password: max 32 bytes. If no username and password required, leave them blank.

Items	Descriptions
GPRS Time Interval	Track by time interval via GPRS. Set time interval for GPRS tracking. Interval is in unit of 10 seconds. (fill in "6" means 60 seconds) Interval = 0, stop tracking by time interval. Max time interval = 65535x10 seconds
GPRS Report Times	= 0, **no limit, unlimited times for report.** = [1, 65535], set report times, MT90 will stop reporting when reaching the preset times.
GPRS Time Zone	Default time of the tracker is GMT 0, you can use this to correct the trackers time to your local time for GPRS report. minute = 0, GMT 0 (default); minute = [-32768,32767], set time difference in minutes to GMT.
Save	Save above settings to the tracker.

For more details on SMS or GPRS settings, please refer to MEITRACK SMS / GPRS Protocol.

Log on GPS Platform

Meitrack will provide you account and password when you purchasing MT90; there are two ways to log on GPS Platform:

1. For computer user: http://www.meigps.com
2. For mobile phone user: http://m.meigps.com

The function on the GPS platform can be realized as follows:

- Snail Tracking
- Geo-fence Control
- Receive and Display Alarms
- Report and Statistics
- Online Configuration

For more information about our GPS platform, please refer to Meitrack MS02 User Guide.

Please do not hesitate to email us at info@meitrack.com if you have any questions.

Safety and Usage Information

Handle and dispose of batteries and chargers with care

Use only Meitrack-approved accessories specially designed for your device. Incompatible accessories can cause serious injuries or damage to your device.

- Never place batteries or devices on or in heating devices, such as microwave ovens, stoves, or radiators. Batteries may explore when overheated.
- Never crush or puncture the battery. Avoid exposing the battery to high external pressure, which can lead to an internal short circuit and overheating.

Correct Disposal of Batteries of MT90

(Applicable in the European Union and other European countries with separate battery return system).

This marking in the battery, manual or packaging indicates that batteries on this product should not be disposed of with other household waste at the end of their working life. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect the natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

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